
**THE DEVELOPMENT OF A SCALE FOR ASSESSING
THE ATTITUDE OF PRESERVICE ELEMENTARY
EDUCATION MAJORS TOWARD READING**

Joan B. Elliott

Indiana University of Pennsylvania

When one attempts to measure reading attitudes of college students, several questions come to mind. Are there any instruments available? How reliable are the choices marked by college students on a given inventory? Is the instrument valid? Would information on the subscale groupings such as school related reading, recreational reading and general reading be useful in diagnosing a student's attitude toward reading? Would this information assist an instructor in making decisions about the learner in the teaching-learning process? These questions were used as a basis for the following study.

A review of the research revealed a paucity of research available on the attitude of college students toward reading. Although research has been completed at the elementary and secondary levels on the effects of attitude and achievement and attitude and self-concept, the research revealed only one assessment scale available for college students (Moore and Lemons, 1982).

According to Zirkel and Green (1976) and Tullock-Rhody and Alexander (1980), the attitudes that students have in regard to reading are closely related to reading achievement at both the elementary and secondary levels. There also appears to be a relationship between reading and self-concept and motivation. Several self-report instruments have been previously designed and published at the elementary and secondary levels Askov (1971); Estes (1971); Rowell (1972); Alexander and Filler (1976); Tullock-Rhody and Alexander (1980). Although studies have been conducted on the reading habits of adults and/or college students, a review of the literature revealed little research as to how college students feel about reading.

An individual's attitude is usually expressed in terms of personal preferences or beliefs. Any instrument surveying attitudes should arouse students to respond to statements that are personal, within the respondent's social milieu, and are action-centered (Hess, 1978).

This study was designed to develop a reliable and valid instrument to measure the attitude of preservice elementary education majors toward reading and to recommend specific uses of the scale. Additional data were gathered to determine the reliability of three subscale groupings and the intercor-

relations among the three subscales.

Development of the Scale

The following procedures were used in the development of the college reading attitude scale: a) selection of instrument type, b) selection of the population, c) development of statements, d) establishment of subscales, e) determination of data analysis, f) pilot study, and g) administration of the scale for the purpose of establishing reliability and validity.

Selection of Instrument Type

In the selection of a technique for designing an attitude scale for college students toward reading, several approaches were considered such as The Thurstone Technique (Oppenheim, 1966), Osgood's Semantic Differential (1971), and The Likert Analysis (Edwards, 1957). Alexander and Filler (1976) ascertain the teacher observation of relevant behaviors over time is the most reliable way to assess attitudes, however, time and schedule constraints at the college level make this inappropriate. Since no scales for assessment were apparent in the literature, this investigator chose to use the Likert summated rating technique because its design permits students to express degrees of feeling concerning the behaviors reflected in the items sampled. Since degrees of feeling exist, this type of pencil and paper technique was considered to be the most appropriate and expeditious for use in the college classroom.

Selection of Population

The population used in this study was preservice elementary education majors, sophomore through senior level students enrolled in a state-owned and a state-related university in Pennsylvania. In the data analysis, no attempt was made to identify the number of male and female participants nor to classify students by years in school. The majority of students were female. The students were almost equal across grade levels from sophomores through seniors.

Development of Statements

Approximately 50 sophomore through senior level elementary education majors were asked to write four to five statements which reflected their personal attitude toward reading. After reviewing the literature, this investigator wrote several statements which research showed that were related to reading attitude. From a synthesis of the 70 initial statements, the investigator selected 50 statements which were placed in random order for the pilot study.

Establishment of Subscales

The investigator chose the areas of school related reading, recreational reading and general reading as subscale groupings. The attitude statements were grouped into predetermined clusters of statements and were later subjected to factor analysis to confirm the classification and the reliability of the factors. As an aid in developing the groupings, the following operational definitions were used for each type of reading:

School related reading — reading to acquire knowledge about a content area, correct use of language or grammar

Recreational reading — reading done for pleasure and enjoyment, a leisure time activity.

General reading — reading for the purpose of personal growth and self-fulfillment.

Determination of Data Analysis

The literature did not reveal any specific or preferred means to use for analyzing data on the Likert scale. This investigator used the Likert Attitude Scale Analysis Main Program by Kohr (1974) which was made available to her by The Pennsylvania State University.

Pilot Study

The pilot study was completed after having the questionnaire, composed of 50 statements, read by four colleagues and having 40 preservice elementary education majors at Indiana University of Pennsylvania complete the questionnaire. The data were analyzed and the items were revised. The final scale consists of 32 items and takes approximately twenty minutes to administer. School related reading items represent 25% or 8 items; Recreational reading items represent 44% of 14 items; and General reading represents 31% or 10 items.

All items were randomly assigned for their appearance on the scale.

Administration of the Scale for Reliability and Validity Measure

The final questionnaire was then administered to 86 sophomore through senior elementary education majors at The Pennsylvania State University and 50 sophomore through senior elementary education majors at Indiana University of Pennsylvania. The data from the 136 students were analyzed for reliability and validity checks of the attitude scale. Crano and Brewer (1973) suggested a coefficient alpha of .80 or above indicated a highly reliable instrument. The results of the analysis of the data as computed using the Kohr Program showed the instrument to be highly reliable with the r obtained on 50 items being 0.92. Likewise, on 32 items the r was 0.90. Even with decreasing the items to 17, the r was 0.80.

Downie and Heath (1970) suggest ranges between .40 and .60 are accepted as valid coefficients. Of the 50 items on the pilot scale, the correlation of 35 items was sufficient for their inclusion on the final scale. The scale was reduced to 32 items to keep the scale brief for ease in administering and scoring. Other indications of validity for this scale are as follows: a) the items came from a synthesis of comments by college students, b) the individual items retained on the final scale are correlated at an acceptable level with the total scale, and sufficient T-scores.

The predetermined subscales of the attitude scale showed that factor 1, School related reading contributed 22.3% of the variance. Factor 2, Recreational reading, accounted for 10.6% of the variance. Factor 3, General reading, accounted for 10.9% of the variance. The factor analysis of the items using the three predetermined subscales accounted for almost 44% of the total variance. In the original data collection of the fifty statements, if a factor showed a low or negative correlation then that item was dropped from the scale. Although factors 2 and 3 seem to be related, when one looks at the specific items, they are measuring different things.

Discussion and Recommended Uses of the Scale

The development of a positive attitude toward reading is important at all levels of instruction. The complexity of learning in higher education often requires that the student complete research papers or additional readings to master course content. Students with a poor attitude toward reading may not readily complete their assignments satisfactorily. They often rely on information from a classmate, instruction of content for the subject area by the professor or by logical reasoning in order to pass the course.

The following uses for the attitude scale are recommended for consideration:

1. It is suggested that the scale be used at the beginning of a course. The results could be used by the instructor to motivate students to complete the reading for course requirements or to go beyond the assigned reading and read for pleasure.
2. It is believed the scale could be used as a means of counseling students to seek remedial instruction should their poor attitude be a result of the student's inability to read at the difficulty level of the material.
3. If a student indicates a negative attitude toward school related reading on this scale and a positive attitude toward recreational reading, then more diversified strategies might be provided for accomplishing course content.
4. Using the questionnaire with elementary education majors to determine their attitude toward reading is important because their enjoyment of reading determines the influence they will have on young children.
5. The questionnaire could be administered to college Freshman and correlated with their Scholastic Aptitude Test Scores and then correlated with their achievement after four years of college.

Questions for Further Research

What would the data reveal as to the reliability and validity if this scale were administered to students across academic disciplines? What is the relationship between college students and reading achievement? Can we change the attitude of college students? Do elementary education majors model their instructors in class as they role-model their cooperating teachers? Would a student's attitude be different if he were to evaluate his feelings toward content in areas of his interest?

REFERENCES

- Alexander, J.E. & Filler, R.C. *Attitudes and Reading*. Newark, Delaware: International Reading Association, 1976.
- Askov, E.N. *Primary Pupil Reading Attitude Inventory*. Dubuque, Iowa: Kendall/Hunt, 1973.
- Crano, W.D. & Brewer, M.B. *Principles of Research in Social Psychology*. New York, New York: McGraw-Hill, 1973.
- Downie, N.M. & Heath, R.W. *Basic Statistical Methods*. New York, New York: Harper & Row, 1970.
- Edwards, A.L. *Techniques of Attitude Scale Construction*. New York, New York: Appleton-Century-Crofts, 1957.
- Estes, T.H. "A Scale to Measure Attitudes Toward Reading," *Journal of Reading* November 1971, 17, 135-138.
- Hess, C. Three methods of teaching metric measurement and their cognitive and affective effects on preservice elementary teachers. Unpublished doctoral dissertation, The Pennsylvania State University, University Park, Pennsylvania, 1978.
- Kohr, R.L. *Likert Attitude Scale Analysis: Main Program*. Contact: Program Librarian, Computer Building, The Pennsylvania State University, University Park, Pennsylvania, 16802, 1974.
- Moore, S.C. and Lemons, J. "Measuring Reading Attitudes: Three Dimensions," *Reading World*. 1982, 22, 48-57.
- Oppenheim, A.N. *Questionnaire Design and Attitude Measurement*. New York, New York: Basic Books, 1969.
- Osgood, C.E., Suci, G.J., & Tannebaum, P.H. *The Measurement of Meaning*. Urbana, Illinois: University of Illinois Press, 1971.
- Rowell, C.G. "An Attitude Scale for Reading," *The Reading Teacher*. 1972, 25, 442-447.
- Tullock-Rhody, R. & Alexander, J.E. "A Scale for Assessing Attitudes Toward Reading in Secondary Schools," *Journal of Reading*. 1980, 23, 609-614.
- Zirkel, P.A. & Green, J.F. "Measurement of Attitudes Toward Reading in the Elementary Grades: A Review," *Reading World*. 1976, 16, 104-113.